1991

Nebraska Summary: S102 Ford 3430 8x8

Nebraska Tractor Test Laboratory
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SUMMARY OF OECD TEST 1347—NEBRASKA SUMMARY 102
FORD 3430 (8x8) DIESEL
8 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Fuel Consumption Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—615 rpm)					
39.0 *(29.1)*	2000	2.56 *(9.69)*	0.459 *(0.279)*	15.23 *(3.00)*	
Standard PTO Speed (PTO—541 rpm)					
37.7 *(28.1)*	1760	2.42 *(9.15)*	0.449 *(0.273)*	15.58 *(3.07)*	
VARYING POWER AND FUEL CONSUMPTION					
39.0 *(29.1)*	2000	2.56 *(9.69)*	0.459 *(0.279)*	15.23 *(3.00)*	Air temperature
33.5 *(25.0)*	2031	2.29 *(8.66)*	0.477 *(0.290)*	14.67 *(2.89)*	73°F *(23°C)*
25.9 *(19.3)*	2081	1.94 *(7.35)*	0.526 *(0.320)*	13.30 *(2.62)*	Relative humidity
17.2 *(12.8)*	2120	1.57 *(5.93)*	0.636 *(0.387)*	10.96 *(2.16)*	34%
8.5 *(6.3)*	2139	1.21 *(4.58)*	0.996 *(0.606)*	7.00 *(1.38)*	Barometer
— —	2179	0.88 *(3.32)*	— —	— —	29.6″ Hg *(100.2 kPa)*

Maximum Torque 125.5 lb. ft *(170.1 Nm)* @ 1200 rpm
Maximum Torque Rise 22.6%

DRAWBAR PERFORMANCE
FUEL CONSUMPTION CHARACTERISTICS

Power HP *(kW)*	Drawbar pull *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Temp.°F *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—5th (1H) Gear									
32.5 *(24.2)*	2385 *(10.6)*	5.10 *(8.20)*	2000	6.3	0.562 *(0.342)*	12.44 *(2.45)*	180 *(82)*	55 *(13)*	29.8 *(100.9)*
75% of Pull at Maximum Power—5th (1H) Gear									
25.7 *(19.2)*	1820 *(8.1)*	5.31 *(8.55)*	2049	4.6	0.610 *(0.371)*	11.47 *(2.26)*	178 *(81)*	52 *(11)*	29.8 *(100.9)*
50% of Pull at Maximum Power—5th (1H) Gear									
17.6 *(13.1)*	1190 *(5.3)*	5.51 *(8.86)*	2091	3.1	0.730 *(0.444)*	9.59 *(1.89)*	178 *(81)*	52 *(11)*	29.8 *(100.9)*
75% of Pull at Reduced Engine Speed—6th (2H) Gear									
25.3 *(18.9)*	1800 *(8.0)*	5.31 *(8.54)*	1379	4.5	0.554 *(0.337)*	12.59 *(2.48)*	178 *(81)*	52 *(11)*	29.8 *(100.9)*
50% of Pull at Reduced Engine Speed—6th (2H) Gear									
17.3 *(12.9)*	1170 *(5.2)*	5.51 *(8.86)*	1411	3.1	0.600 *(0.365)*	11.62 *(2.29)*	178 *(81)*	52 *(11)*	29.8 *(100.9)*

DRAWBAR PERFORMANCE
MAXIMUM POWER IN SELECTED GEARS

2nd (2L) Gear									
25.3 *(18.9)*	4790 *(21.3)*	1.98 *(3.19)*	2038	15.0	0.639 *(0.389)*	10.91 *(2.15)*	178 *(81)*	52 *(11)*	29.8 *(100.9)*
3rd (3L) Gear									
30.6 *(22.8)*	3685 *(16.4)*	3.11 *(5.00)*	2000	10.4	0.589 *(0.358)*	11.88 *(2.34)*	183 *(84)*	57 *(14)*	29.8 *(101.0)*
4th (4L) Gear									
30.7 *(22.9)*	2405 *(10.7)*	4.78 *(7.70)*	2000	6.4	0.597 *(0.363)*	11.73 *(2.31)*	180 *(82)*	55 *(13)*	29.8 *(100.9)*
5th (1H) Gear									
32.5 *(24.2)*	2385 *(10.6)*	5.10 *(8.20)*	2000	6.3	0.562 *(0.342)*	12.44 *(2.45)*	180 *(82)*	55 *(13)*	29.8 *(100.9)*
6th (2H) Gear									
30.6 *(22.8)*	1485 *(6.6)*	7.72 *(12.42)*	2000	3.9	0.605 *(0.368)*	11.57 *(2.28)*	181 *(83)*	54 *(12)*	29.8 *(100.9)*

Location of Test: Silsoe Research Institute, Wrest Park, Silsoe, Bedford, England MK45 4HS

Dates of Test: March to May, 1991

Manufacturer: FORD NEW HOLLAND LTD, Basildon, Essex, England

FUEL AND OIL: Fuel No. 2 Diesel **Cetane No.** 54.5 **Specific gravity converted to 60°/60°F** ***(15°/15°C)*** 0.840 **Fuel weight** 6.99 lbs/gal *(0.838 kg/l)* **Oil SAE** 15W40 **Oil consumption for 10 hours** NA **Transmission and final drive lubricant** SAE 80W **Front axle lubricant** SAE 80W

ENGINE: Make Ford Diesel **Type** three cylinder vertical **Serial No.** B294889 **Crankshaft** lengthwise **Rated engine speed** 2000 **Bore and stroke** 4.4″ × 4.2″ *(111.8 mm × 106.7 mm)* **Compression ratio** 16.3 to 1 **Displacement** 192 cu in *(3142 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** radiator for power steering fluid **Fuel filter** one paper element and sediment bowl **Muffler** vertical **Cooling medium temperature control** one thermostat

CHASSIS: Type front wheel assist **Serial No.** BC 77819 **Tread width** rear 56.0″ *(1423 mm)* to 79.8″ *(2026 mm)* front 55.0″ *(1396 mm)* to 73.0″ *(1855 mm)* **Wheel base** 84.1″ *(2136 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Advertised speeds mph *(km/h)*** first 1.51 *(2.43)* second 2.24 *(3.60)* third 3.41 *(5.48)* fourth 5.00 *(8.05)* fifth 5.33 *(8.57)* sixth 7.89 *(12.69)* seventh 12.01 *(19.33)* eighth 17.64 *(28.39)* reverse 1.50 *(2.42)*, 2.22 *(3.58)*, 3.39 *(5.45)*,4.98 *(8.01)*, 5.29 *(8.52)*, 7.85 *(12.63)*, 11.96 *(19.24)*, 17.55 *(28.25)* **Clutch** single dry disc operated by foot pedal **Brakes** wet multiple disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1756 engine rpm **Unladen tractor mass** 5460 lb *(2476 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD restricted standard test code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1347**, Nebraska Summary 102, May 11, 1992.

LOUIS I. LEVITICUS
Engineer-in-Charge

L. L. BASHFORD
R. D. GRISSO
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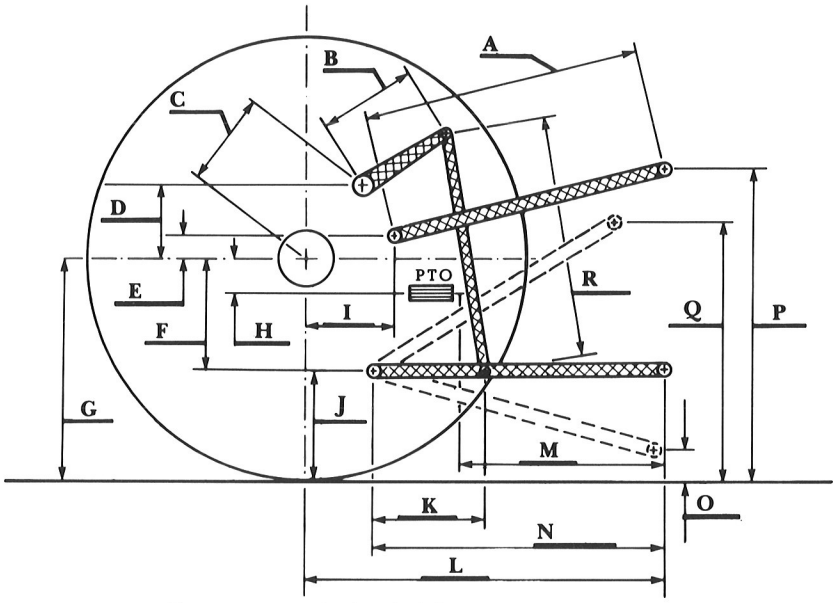
Board of Tractor Test Engineers

TIRES AND WEIGHT		Tested Without Ballast
Rear Tires	—No., size, ply & psi *(kPa)*	Two 13.6R28; 6: 12 *(83)*
Front Tires	—No., size, ply & psi *(kPa)*	Two 8.3-24; 4; 14 *(97)*
Height of Drawbar		7.5 in *(190 mm)*
Static Weight with operator	—Rear	3350 lb *(1520 kg)*
	—Front	2275 lb *(1031 kg)*
	—Total	5625 lb *(2551 kg)*

THREE POINT HITCH PERFORMANCE
(OECD Static Test)

CATEGORY: I
Quick Attach: none

Maximum Force Exerted Through Whole Range:	2700 lbs *(12.0 kN)*
i) Opening pressure of relief valve:	NA
Sustained pressure with relief valve open:	2540 psi *(175 bar)*
ii) Pump delivery rate at minimum pressure:	8.2 GPM *(31.0 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	7.2 GPM *(27.4 l/min)*
Delivery pressure:	2175 psi *(150 bar)*
Power:	9.19 HP *(6.85 kW)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	28.3	*719*
B	10.0	*254*
C	12.9	*328*
D	10.1	*257*
E	7.5	*191*
F	8.0	*203*
G	24.0	*610*
H	4.8	*123*
I	8.7	*222*
J	16.0	*407*
K	19.1	*485*
L	37.1	*942*
M	20.7	*527*
N	34.4	*874*
O	7.9	*200*
P	34.1	*867*
Q	32.3	*820*
R	29.4	*746*

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